

EPITAXIALLY DEPOSITED SOURCE/DRAIN

Abstract of the Disclosure

An epitaxially deposited source/drain extension may be formed for a metal oxide semiconductor field effect transistor. A sacrificial layer may be formed and etched
5 away to undercut under the gate electrode. Then a source/drain extension of epitaxial silicon may be deposited to extend under the edges of the gate electrode. As a result, the extent by which the source/drain extension extends under the gate may be controlled by controlling the
10 etching of the sacrificial material. Its thickness and depth may be controlled by controlling the deposition process. Moreover, the characteristics of the source/drain extension may be controlled independently of those of the subsequently formed deep or heavily doped source/drain
15 junction.